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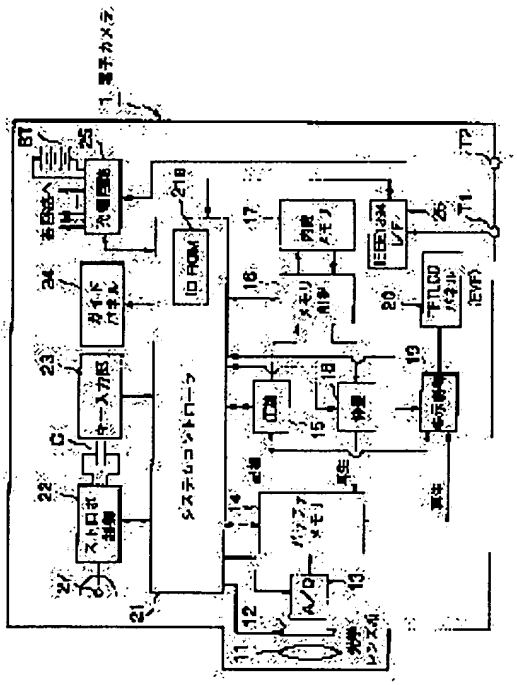
(54) ELECTRONIC CAMERA AND RENTAL SERVICE SYSTEM FOR THE ELECTRONIC CAMERA

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an electronic camera that is suitable for a rental service in a closed area and not applicable to any other purposes even when a user carries it.

SOLUTION: The electronic camera 1 is provided with an ID-ROM 21a that stores identification information specific to the electronic camera 1, a built-in memory 17 that stores image data obtained through photographing and is incorporated in an enclosure, an IEEE 1394 terminal T1 to which the identification information is entered, a memory control circuit 16 that reads image data stored in the built-in memory 17, and a system controller 21 that discriminates matching between the entered identification information and the identification information stored in the ID-ROM 21a and regulates reading of image data from the built-in memory 17 by the memory control circuit 16 based on the result of discrimination.



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* NOTICES *

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2.**** shows the word which can not be translated.
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CLAIMS

[Claim(s)]
[Claim 1] An identification information storage means by which the identification information of the camera proper was memorized, and the record medium built in the camera housing which records the image data obtained by photography, An input means to input identification information, and the read-out means which reads the image data recorded on the above-mentioned record medium, A decision means to judge coincidence with the identification information inputted with the above-mentioned input means, and the identification information memorized by the above-mentioned identification information storage means, The electronic camera characterized by providing the read-out control means which regulates read-out of the image data from the record medium by the above-mentioned read-out means based on the decision result of this decision means.
[Claim 2] An electronic camera and the camera station equipment which reads the image data currently recorded in this camera by setting this electronic camera, It is the rental service system of the electronic camera which has printer equipment which carries out the printed output of the image data read with this camera station equipment. The above-mentioned electronic camera An identification information storage means by which the identification information of the camera proper was memorized, and the record medium built in the camera housing which records the image data obtained by photography, 1st input means to input the identification information sent from the above-mentioned camera station equipment, A decision means to judge coincidence with the identification information inputted with the read-out means which reads the image data recorded on the above-mentioned record medium, and the input means of the above 1st, and the identification information memorized by the above-mentioned identification information storage means, The read-out control means which regulates read-out of the image data from the record medium by the above-mentioned read-out means based on the decision result of this decision means is provided. The above-mentioned camera station equipment 2nd input means to input the identification information of the set electronic camera proper, The rental service system of the electronic camera characterized by providing the print control means which controls the printed output in the above-mentioned printer equipment of that image data when image data is able to be read from this camera as a result of inputting identification information with this 2nd input means.
[Claim 3] The above-mentioned camera station equipment is the rental service system of the electronic camera according to claim 2 characterized by providing a medium elimination means to eliminate the content of record of the record medium in the above-mentioned camera further after reading image data from the above-mentioned camera.
[Claim 4] For the above-mentioned camera station equipment, the above-mentioned camera is the rental service system of the electronic camera according to claim 2 characterized by providing the charge control means which charges the battery charger in the above-mentioned camera further after reading image data from the above-mentioned camera, using a battery charger as a power source of operation.
[Claim 5] The rental service system of the electronic camera according to claim 2 characterized by having further the recording apparatus which writes the image data read with the above-mentioned camera station equipment in a record medium.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] Especially this invention relates to the electronic camera suitable for renting in the area closed [theme park], and the rental service system using this electronic camera.
[0002]
[Description of the Prior Art] In recent years, although it is the electronic camera which is generally spreading widely, it has come to spread through the housewife and elderly-people layer which are still substantially expensive as compared with a film-based camera as for the price, and are made unfamiliar especially at handling of a machine.
[0003] moreover , unlike the film-based camera , the electronic camera excel [part / which do not need to perform development of a film etc.] also in the point whose print-out be possible for a short time , but by the printer of the price band which an individual can purchase , image quality equivalent to what printed the silver halide film in the general lab cannot be acquire , but service from which a high-definition print be obtain have begin by carry digital image data into a lab in recent years .
[0004] A deer is carried out, an electronic camera is rented in the closed area, such as a theme park and an amusement park, and the rental service which returns a camera at the time of coming back from a kindergarten, and can obtain a high-definition print is considered partly.
[0005]
[Problem(s) to be Solved by the Invention] However, as mentioned above, the electronic camera itself is expensive, and since it excels also in portability, it is also considered that the memory card which the body of an electronic camera and almost all types of electronic camera have equipped and in which the attachment and detachment as a record medium are free will be brought home. Therefore, it is necessary to take a certain measure also against such nonconformity, and the lucid method of overcoming this is not yet found in the actual condition.
[0006] The place which this invention was made in view of the above actual condition, and is made into that object is to offer an electronic camera without how to be used for others, and the rental service system using this electronic camera, even if it is suitable for rental service in area closed to some extent, such as a theme park and an amusement park, and a user brings home.
[0007]
[Means for Solving the Problem] An identification information storage means by which invention according to claim 1 memorized the identification information of the camera proper, The record medium built in the camera housing which records the image data obtained by photography, An input means to input identification information, and the read-out means which reads the image data recorded on the above-mentioned record medium, A decision means to judge coincidence with the identification information inputted with the above-mentioned input means, and the identification information memorized by the above-mentioned identification information storage means, It is characterized by providing the read-out control means which regulates read-out of the image data from the record medium by the above-mentioned read-out means based on the decision result of this decision means.
[0008] Since the image data currently recorded on the built-in medium [that it cannot detach and attach] cannot be read unless such a configuration, then right identification information are inputted, it is suitable for rental service in the closed area, such as a theme park and an amusement park, for example, and what will be brought home by this service user can be prevented.

[0009] Invention according to claim 2 is setting an electronic camera and this electronic camera. The camera station equipment which reads the image data currently recorded in this camera, It is the rental service system of the electronic camera which has printer equipment which carries out the printed output of the image data read with this camera station equipment. The above-mentioned electronic camera An identification information storage means by which the identification information of the camera proper was memorized, and the record medium built in the camera housing which records the image data obtained by photography, 1st input means to input the identification information sent from the above-mentioned camera station equipment, A decision means to judge coincidence with the identification information inputted with the read-out means which reads the image data recorded on the above-mentioned record medium, and the input means of the above 1st, and the identification information memorized by the above-mentioned identification information storage means, The read-out control means which regulates read-out of the image data from the record medium by the above-mentioned read-out means based on the decision result of this decision means is provided. The above-mentioned camera station equipment 2nd input means to input the identification information of the set electronic camera proper, As a result of inputting identification information with this 2nd input means, when image data is able to be read from this camera, it is characterized by providing the print control means which controls the printed output in the above-mentioned printer equipment of that image data.
[0010] Since the image data recorded on the built-in medium for which the attachment and detachment in a camera are improper cannot be read unless right identification information is inputted under the condition that such a system configuration, then an electronic camera are rented, it is suitable for rental service in the closed area, such as a theme park and an amusement park, for example, and what will be brought home by this service user can be prevented.
[0011] Invention according to claim 3 is characterized by the above-mentioned camera station equipment possessing further a medium elimination means to eliminate the content of record of the record medium in the above-mentioned camera after reading image data from the above-mentioned camera in invention of the claim 2 above-mentioned publication.
[0012] In addition to an operation of invention of such a system configuration, then the claim 2 above-mentioned publication, the time and effort for eliminating the content of the record medium in preparation for the next user can be saved, and especially the utilization frequency of an electronic camera can mitigate the burden by the side of a service contractor in a high situation.
[0013] Invention according to claim 4 is characterized by the above-mentioned camera possessing the charge control means which charges the battery charger in the above-mentioned camera after the above-mentioned camera station equipment reads image data from the above-mentioned camera further, using a battery charger as a power source of operation in invention of the claim 2 above-mentioned publication.
[0014] The time and effort for charging the battery charger exhausted in preparation for the next user in addition to the operation of invention of such a system configuration, then the claim 2 above-mentioned publication can be saved, and especially the utilization frequency of an electronic camera can mitigate the burden by the side of a service contractor in a high situation.
[0015] Invention according to claim 5 is characterized by having further the recording device which writes the image data read with the above-mentioned camera station equipment in a record medium in invention of the claim 2 above-mentioned publication.
[0016] In addition to an operation of invention of such a system configuration, then the claim 2 above-mentioned publication, a user can utilize the image data photoed with the rented electronic camera by extra copy etc. behind.
[0017]
[Embodiment of the Invention] This invention is explained with reference to a drawing below about the gestalt of the 1 operation at the time of applying to the rental service system of the electronic camera used by the theme park.
[0018] First, drawing 1 explains the fundamental configuration of this service system. In this drawing, 1 is an electronic camera used as the object for a rental, and a built-in battery charger is lent out for full charge and the same memory for built-in image data logging to a service user in the condition of having been eliminated thoroughly.
[0019] By carrying out the installation set of this electronic camera 1 at camera station equipment 2, and keying the identification number of a proper correctly to every set of this electronic camera 1, if an electronic camera 1 is returned after utilization Becoming possible to read image data from the above-mentioned memory, and displaying an image suitably with a monitoring device 3 A high-definition print equivalent to a silver salt print is obtained with printer equipment 4, and as occasion demands, image data can be recorded on CD-R (compact disc recordable) with CD-R

equipment 5, and the above-mentioned print and CD-R are distributed among a service user.
[0020] An electronic camera 1 must contain the memory for recording image data fixed, from the exterior of a camera housing, it presupposes that attachment and detachment are impossible, and it is in the condition which carried out the installation set of this electronic camera 1 at camera station equipment 2, and in order to read the image data recorded on this memory, as mentioned above by key input section 2a of camera station equipment 2, must correct, it must be and an operator has to input an identification number.
[0021] this -- for example, two or more electronic cameras 1 -- what is necessary is to stick bar code label 1a on the location which does not become the obstacle of each housing sheathing beforehand, and just to build a ledger system by which a corresponding identification number is displayed by reading this bar code label 1a by the bar code reader and which is not illustrated to the service counter of the center which performs this rental service
[0022] In that case, the identification number displayed may be made to make a rewriting change of the identification number made to memorize in bar code label 1a which does not necessarily need to be visible to a user and is stuck on the content 1 of the above-mentioned ledger system, i.e., an electronic camera, and an electronic camera 1 periodically.
[0023] By building the rental service system of such an electronic camera, since the recorded image data cannot be outputted even if the service user has carried out the electronic camera 1 out of a theme park, an unnecessary theft etc. can be prevented.
[0024] After the above-mentioned camera station equipment 2 lays an electronic camera 1 and reads image data, it shall start charge of the battery charger exhausted automatically, shall eliminate memory simultaneously, and shall be charging lamp 2b about the condition of charge, in addition shall display the whole operating state by guide panel 2c, respectively.
[0025] In addition, although above-mentioned drawing 1 explains the fundamental configuration of this service system, in the service center in a actual theme park, the electronic camera 1 of an a large number base and camera station equipment 2 will be dealt with according to the magnitude.
[0026] Therefore, it does not have key input section 2a and guide panel 2c every camera station equipment 2. For example, each output unit and key input section 2a of the above-mentioned monitoring device 3, printer equipment 4, and CD-R equipment 5, The facility including each man machine interface equipment of guide panel 2c is arranged for every operator of a service counter. On the other hand, the camera station equipment 2 which has charging lamp 2b by the number of an electronic camera 1 is arranged, and it is thought that the system which carried out network connection of these is built.
[0027] However, in the gestalt of this operation, in order to simplify explanation, it shall explain based on the basic configuration shown in above-mentioned drawing 1 .
[0028] Subsequently, it illustrates to drawing 2 about the concrete circuitry of the above-mentioned electronic camera 1.
[0029] In this drawing, after image formation is carried out by the optical lens system 11 on CCD12 whose optical image of a photographic subject is an image sensor and the output of this CCD12 is digitized in each pixel unit with A/D converter 13 at the time of a recording mode, it is stored in buffer memory 14.
[0030] At any time, a data compression is performed by file format predetermined in the compression circuit 15, for example, JPEG, and the image data which this buffer memory 14 stores the image data of a bit map format by two or more coma, and was stored here is file-ized, is sent to the memory control circuit 16 after that, and is written in the internal memory 17 which is the record medium of this electronic camera 1 and which becomes by the flash memory.
[0031] Moreover, in using the color TFT-LCD panel 20 equipped with the back light prepared in electronic camera 1 tooth back as EVF (electronic viewfinder) at this time, image data is read from buffer memory 14 also to the display-control circuit 19, and the display-control circuit 19 is giving pixel infanticide suitably based on this image data, and carrying out display actuation of the TFT-LCD panel 20, and displays the content currently picturized by CCD12 on real time.
[0032] After the file of the image data currently recorded on the internal memory 17 is read by the memory control circuit 16, and it is elongated in a reverse procedure with processing in the above-mentioned compression circuit 15 on the other hand in the expanding circuit 18 at the time of a playback mode and being developed by the bit map format, it is stored in buffer memory 14.
[0033] The image data stored in this buffer memory 14 is read to the display-control circuit 19, and the display-control circuit 19 gives pixel infanticide suitably based on this image data, and makes the repeat display of the image which is

carrying out display actuation and recorded the TFT-LCD panel 20 perform.
[0034] A deer is carried out and a system controller 21 carries out generalization control of all the actuation of the above CCD 12, A/D converter 13, buffer memory 14, the compression circuit 15, the memory control circuit 16, the expanding circuit 18, and the display-control circuit 19.
[0035] It is inherent in ID-ROM21a which memorized the identification number of this electronic camera 1 proper and which consisted of EEPROMs, motion control of all the circuits of an electronic camera 1 is performed, and it connects also with other stroboscope control circuits 22, the key input section 23, the guide panel 24, a charge circuit 25, and the IEEE1394 interface (I/F) 26, and this system controller 21 controls these.
[0036] After the stroboscope control circuit 22 charges the charge supplied from a charge circuit 25 to the bottom of control of a system controller 21 to the stroboscope capacitor C, flash actuation of it is carried out by the stroboscope 27 which has the discharge tube which becomes with xenon tubing, and a reflector.
[0037] The key input section 23 has a mode key, a self-timer key, etc. which switch the release switch, recording mode, and playback mode for directing the photography timing of an electric power switch and a still picture which turns on / turns off a power source, and the manipulate signal is sent out to the direct above-mentioned system controller 21.
[0038] The guide panel 24 is formed in the housing top face of an electronic camera 1, is constituted by the LCD panel of monochrome, is a 8-character-like segment about a numeric value in ****** of the number of ****** coma according to the image quality mode in the event which can be picturized, and a battery charger etc., and expresses others as a notation, a symbol, etc.
[0039] A charge circuit 25 supplies a power source to each required circuit, when the power supplied from the terminal T2 for charge is charged at a battery charger BT according to the control from a system controller 21 when this electronic camera 1 is laid in the above-mentioned camera station equipment 2, and an electronic camera 1 is not laid in camera station equipment 2 and ON setting out of the electric power switch of the key input section 23 is carried out.
[0040] The IEEE1394 interface 26 is in the condition which laid this electronic camera 1 in camera station equipment 2, and it is placed between the camera station equipment 2 and the above-mentioned system controllers 21 which are connected through the IEEE1394 terminal T1 by it, and it controls transmission and reception of various control data or image data based on IEEE1394 specification.
[0041] Next, the circuitry in the above-mentioned camera station equipment 2 is explained using drawing 3 . As shown in this drawing, camera station equipment 2 has guide panel 2c, the IEEE1394 interfaces (I/F) 31 and 33, a charge circuit 32, a control section 34, a video circuit 35, key input section 2a, and charging lamp 2b.
[0042] When the IEEE1394 interface 31 lays the above-mentioned electronic camera 1 in this camera station equipment 2, it is placed between an electronic camera 1 and a control section 34 through IEEE1394 terminal T3 by which a connector joint is carried out to the above-mentioned IEEE1394 terminal T1, and controls transmission and reception of control data and image data based on IEEE1394 specification.
[0043] When it similarly lays the above-mentioned electronic camera 1 in this camera station equipment 2, a charge circuit 32 supplies power through terminal T four for charge by which a connector joint is carried out to the above-mentioned terminal T2 for charge, is for making the above-mentioned battery charger BT charge, and acquires that supply voltage from the AC power connected through a terminal T5.
[0044] The IEEE1394 interface 33 is placed between the above-mentioned printer equipment 4 and the CD-R equipment 5 which are connected to digital one through output terminals T6 and T7, and a control section 34, and performs control about the image data outputted to each above-mentioned equipments 4 and 5 mainly from a control section 34.
[0045] A control section 34 is what controls various actuation corresponding to the key stroke signal inputted from key input section 2a where an electronic camera 1 is laid in this camera station equipment 2. While sending out the image data read from the electronic camera 1 side to printer equipment 4 and CD-R equipment 5 through the above-mentioned IEEE1394 interface 31 Output to a video circuit 35, and make it change into the video signal of an analog, and it is made to output to the above-mentioned monitoring device 3 from the video outlet terminal T8. Moreover, the electric power supply to the electronic camera 1 by the above-mentioned charge circuit 32 is checked, and the display control of red or the green LED lamp is further carried out according to the charge condition over the above-mentioned battery charger BT with the above-mentioned charging lamp 2b.
[0046] Next, actuation of the gestalt of the above-mentioned implementation is explained.
[0047] Drawing 4 shows the content of processing which a system controller 21 mainly performs from the condition of

considering as power-source OFF in an electronic camera 1.
[0048] (Steps A01 and A02) and these inputs are stood by because a system controller 21 repeats one by one whether the seizing signal from camera station equipment 2 was inputted through the no by which the electric power switch of the key input section 23 was turned on or the IEEE1394 terminal T1, and the IEEE1394 interface 26 from the condition of power-source OFF and judges it in this drawing.
[0049] If it judges that the deer was carried out and the electric power switch was turned on at the above-mentioned step A01 As that by which this electric power switch was turned on for photography of the image using this electronic camera 1 Fixed time amount by the register built in the system controller 21 for the auto-power-off function, for example, the timer which counts for 10 minutes -- resetting -- a time check -- after making actuation start -- (step A03) -- with, a ****** [that the account electric power switch of Gokami was turned off] (step A04) -- the time check of the above-mentioned timer -- these inputs are stood by by repeating and judging whether whether the value's having become fixed time amount and a release switch (step A05) were turned on (step A06).
[0050] When it was judged that the electric power switch was turned off at the above-mentioned step A04, the total chronaxie of a timer became fixed time amount at the above-mentioned step A05, namely, when it is judged that fixed time amount passed as actuation was not made at all by it, it returns to processing from the above-mentioned step A01 by making a power source into an OFF state again.
[0051] Moreover, when it is judged that the release switch was turned on at step A06, after measuring the distance to the photographic subject image in that event based on this switch actuation promptly, measuring fitness exposure and adjusting a fitness white balance simultaneously, it picturizes by making a stroboscope 27 emit light as occasion demands in the stroboscope control circuit 22 suitably (step A07).
[0052] in this case, after the image data obtained from CCD12 by the image pick-up is digitized with A/D converter 13 for every configuration pixel and being stored in buffer memory 14, the data compression based on a file format predetermined in the compression circuit 15 gives -- having -- ******** -- are-izing, the thumbnail image as a preview image which thinned out the configuration pixel substantially collectively is created, and it is written in an internal memory 17 by the memory control circuit 16 after that, respectively (step A08).
[0053] then, the above-mentioned timer -- anew -- resetting -- a time check -- it judges whether the capacity which is made to start actuation (step A09), and has already used the internal memory 17 by the writing of the above-mentioned image filled (step A10).
[0054] This returns to processing from the above-mentioned step A04 again, when it is judged that the capacity for which a system controller 21 makes the condition of an internal memory 17 judge by the memory control circuit 16, and is using the internal memory 17 can still continue photography of an image rather than is full.
[0055] The deer was carried out, by performing photography of the above images at any time, when it became impossible to have written in the image data beyond it to an internal memory 17, this was judged at step A10 and photography for the guidance message which shows the purport that the internal memory 17 filled, suitably to the guide panel 24 with a predetermined beep sound, for example, "schedule number of sheets, was ended. please have a camera to a service center. " -- time amount [fixed], for example, after displaying for 10 seconds and carrying out singing of the predetermined beep sound etc. as occasion demands collectively, a power source is turned off automatically (step A11), and it returns to processing from the above-mentioned step A01 again.
[0056] moreover, when it is judged that the seizing signal from camera station equipment 2 was inputted at the above-mentioned step A02 Since it will be in the condition of this electronic camera 1 having been carried into the service center, and having been laid and set in camera station equipment 2 A power source is set to ON using the power henceforth supplied from camera station equipment 2 through the not power but terminal T2 for charge of a battery charger BT (step A12), and it shifts to read-out processing and after treatment of the image data currently recorded on the internal memory 17.
[0057] In camera station equipment 2, from the condition of standing by installation of an electronic camera 1, an electronic camera 1 is laid, and drawing 5 shows read-out and the content of processing according mainly to a control section 34 until it performs after treatment further for an image, and mixes and explains above-mentioned drawing 4 and this drawing 5 henceforth about actuation of this camera station equipment 2 and an electronic camera 1.
[0058] When it judges it that it stood by (step B01) and the electronic camera 1 was laid that an electronic camera 1 is laid, the power source of an electronic camera 1 is made to turn on in camera station equipment 2 by transmitted and combining a seizing signal through the IEEE1394 interface 31 and IEEE1394 terminal T3 to the electronic camera 1,

and supplying power through terminal T four for charge by the charge circuit 32 (step B02).
[0059] Then, it stands by that display the guidance message to which the input of the identification number of the electronic camera 1 of a guide panel 2c odor lever is urged, for example, "input ID of a camera", (step B03), and the identification number of a predetermined digit count is actually inputted by key input section 2a (step B04).
[0060] At this time, before the operator of this service center lays an electronic camera 1 in camera station equipment 2 beforehand, by reading bar code label 1a of an electronic camera 1 by the bar code reader connected to the ledger system, he reads the identification number of this electronic camera 1 proper from this ledger system, and does the actuation input of that identification number by key input section 2a.
[0061] A deer is carried out, and if it judges that the input of the identification number of the electronic camera 1 laid at step B04 was finished, the non-identification number will be continuously transmitted to an electronic camera 1 side through the IEEE1394 interface 31 and IEEE1394 terminal T3 (step B05).
[0062] After setting a power source to ON according to the supply voltage from camera station equipment 2 at the above-mentioned step A12 in an electronic camera 1, It is what stands by that the recognition signal of a predetermined digit count is sent through the IEEE1394 terminal T1 and the IEEE1394 interface 26 from the camera station equipment 2 side (step A13). This is judged when the recognition signal has been sent from camera station equipment 2. Next, by whether the identification number sent to ID-ROM21a in a system controller 21 from camera station equipment 2 with reference to the identification number of the self-opportunity by which fixed storage is carried out (step A14) was in agreement It judges whether read-out of an image is permitted (step A15).
[0063] Here, when not in agreement with that the identification number sent from camera station equipment 2 is remembered to be by ID-ROM21a, it stands by that return to processing from the above-mentioned step A13 again, and a right identification number is shortly sent from camera station equipment 2.
[0064] On the other hand, it sets to camera station equipment 2. After transmitting the identification number by actuation by key input section 2a to an electronic camera 1 at the above-mentioned step B05, When the identification number which judges whether read-out of the image from an electronic camera 1 became possible, and was transmitted (step B06) is not a thing corresponding to an electronic camera 1 surely Since read-out of an image does not become possible, this is judged, and the guidance message to which reinput of a right identification number is urged, for example, "please input ID of a right camera", is displayed (step B07), and it returns to processing from the above-mentioned step B04 again.
[0065] When the right identification number has been sent from camera station equipment 2, however, in an electronic camera 1 Judge this at the above-mentioned step A15, and an internal memory 17 is opened henceforth. Reading suitably the image data recorded on the internal memory 17 according to the demand from camera station equipment 2, and sending out to camera station equipment 2 (step A16) It stands by by the input of the signal which shows the purport which completed the charge from a charge circuit 25 for the battery charger BT exhausted simultaneously being thoroughly charged according to the supply voltage from camera station equipment 2 (step A17).
[0066] On the other hand, it sets to camera station equipment 2. If it judges that read-out of the image data from an electronic camera 1 is possible at the above-mentioned step B06 by the input of a right identification number, and transmission Then, the index print by all the thumbnail images currently recorded on the internal memory 17 from the electronic camera 1 is made to output with printer equipment 4 (step B08). And the printed output of all image data is obtained on a high-definition print equivalent to a silver salt print using the frame image which used the character of a proper for this theme park with printer equipment 4 further (step B09).
[0067] Furthermore, all the image data read from the above-mentioned electronic camera 1 by hope of the user of this service is recorded on CD-R with a diameter of 8cm with CD-R equipment 5 (step B10).
[0068] In addition, a service user's hope is received based on the index print in the above-mentioned step B08, or a display with a monitoring device 3, and it may be made to carry out the printed output only of the required image data at step B09.
[0069] A service operator hands [according to the print and need which were acquired] over CD-R in exchange for a tariff suitably to the user of service at this event.
[0070] In camera station equipment 2, after ending read-out of the image data from an electronic camera 1, supply power to an electronic camera 1 side by the charge circuit 32 anew, charge of the above-mentioned exhausted battery charger BT is made to start (step B11), and it stands by that a battery charger BT will be in the condition of full charge henceforth (step B12).

[0071] A red LED lamp is made to indicate that it is still under charge by carrying out burning actuation in charging lamp 2b at this time.
[0072] Then, while the above-mentioned battery charger BT serves as full charge, this will be judged at step B12 if the signal which shows that from an electronic camera 1 side is sent, and stopping the electric power supply to the electronic camera 1 by the charge circuit 32 The control signal which reports and (step B13) combines that charge was completed with charging lamp 2b by switching to burning actuation of a green LED lamp, and directs elimination of the content of the above-mentioned internal memory 17 of an electronic camera 1 is sent out. A series of processings with the camera station equipment 2 applied to this drawing 5 above are ended.
[0073] On the other hand, in an electronic camera 1, at step A17, if a charge circuit 25 detects that a battery charger BT is in a full charge condition, it will tell a system controller 21 about this. After sending out the signal which means termination of charge to the camera-control equipment 2 side, it is based on the control signal sent from camera station equipment 2. A series of processings with the electronic camera 1 collectively carried out package elimination and built over drawing 4 for the internal memory 17 which consists of flash memories by (step A18) and the above as power-source OFF are ended, and it prepares for the next loan.
[0074] Thus, even if it rents an electronic camera 1 with service, unless the service user itself inputs the right identification information which cannot be known Since the image data recorded on the internal memory 17 which cannot perform the attachment and detachment in an electronic camera 1 cannot be read Even if the service user has brought this electronic camera 1 home without notice, it cannot be used like a common electronic camera. The theft of an electronic camera 1 can be inhibited as a result, and it is suitable for rental service in the area closed [especially / amusement park / the theme park,].
[0075] Moreover, the battery charger BT which eliminated the internal memory 17 of an electronic camera 1 in preparation for the next user, combined it, and was exhausted can also mitigate the burden of the side which performs service in the situation that especially the utilization frequency of an electronic camera is high by saving each time and effort for charging in preparation for the next user.
[0076] Furthermore, since the image data photoed with the rented electronic camera 1 can be written not only in a print but in CD-R as a record medium and a service user can be passed, a service user can utilize by extra copy etc. behind.
[0077] Moreover, if such a rental service system spreads and many people can use an electronic camera freely, it can become not only a rental application but an aid of activating the whole commercial scene of an electronic camera.
[0078] In addition, although the service user explained with the gestalt of the above-mentioned implementation as what records the image data obtained by photography on CD-R, and is distributed among the service user concerned, not only CD-R but generally as a record medium, of course, you may be the floppy disk which has spread widely for example more.
[0079] In addition, let this invention be what has possible deforming variously and carrying out within limits which do not deviate from the summary.
[0080]
[Effect of the Invention] Since according to invention according to claim 1 the image data currently recorded on the built-in medium [that it cannot detach and attach] cannot be read unless right identification information is inputted, it is suitable for rental service in the closed area, such as a theme park and an amusement park, for example, and what will be brought home by this service user can be prevented.
[0081] Since according to invention according to claim 2 the image data recorded on the built-in medium for which the attachment and detachment in a camera are improper cannot be read unless right identification information is inputted under the condition that an electronic camera is rented, it is suitable for rental service in the closed area, such as a theme park and an amusement park, for example, and what will be brought home by this service user can be prevented.
[0082] According to invention according to claim 3, in addition to the effect of the invention of the claim 2 above-mentioned publication, the time and effort for eliminating the content of the record medium in preparation for the next user can be saved, and especially the utilization frequency of an electronic camera can mitigate the burden by the side of a service contractor in a high situation.
[0083] According to invention according to claim 4, the time and effort for charging the battery charger exhausted in preparation for the next user in addition to the effect of the invention of the claim 2 above-mentioned publication can be saved, and especially the utilization frequency of an electronic camera can mitigate the burden by the side of a service contractor in a high situation.

[0084] According to invention according to claim 5, in addition to the effect of the invention of the claim 2 above-mentioned publication, a user can utilize the image data photoed with the rented electronic camera by extra copy etc. behind.

[Translation done.]

* NOTICES *

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3.In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] Drawing showing the configuration of the whole system concerning one gestalt of operation of this invention.
[Drawing 2] The block diagram showing the circuitry of the electronic camera concerning the gestalt of this operation.
[Drawing 3] The block diagram showing the circuitry of the camera station equipment concerning the gestalt of this operation.
[Drawing 4] The flow chart which shows the content of processing in the electronic camera concerning the gestalt of this operation.
[Drawing 5] The flow chart which shows the content of processing in the camera station equipment concerning the gestalt of this operation.
[Description of Notations]
1 -- Electronic camera
1a -- Bar code label
2 -- Camera station equipment
2a -- Key input section
2b -- Charging lamp
2c -- Guide panel
3 -- Monitoring device
4 -- Printer equipment
5 -- CD-R equipment
11 -- Optical lens system
12 -- CCD
13 -- A/D converter
14 -- Buffer memory
15 -- Compression circuit
16 -- Memory control circuit
17 -- Internal memory
18 -- Expanding circuit
19 -- Display-control circuit
20 -- TFT-LCD panel
21 -- System controller
21 a--ID-ROM
22 -- Stroboscope control circuit
23 -- Key input section
24 -- Guide panel
25 32 -- Charge circuit
26, 31, 33 -- IEEE1394 interface (I/F)
27 -- Stroboscope
34 -- Control section

35 -- Video circuit

[Translation done.]

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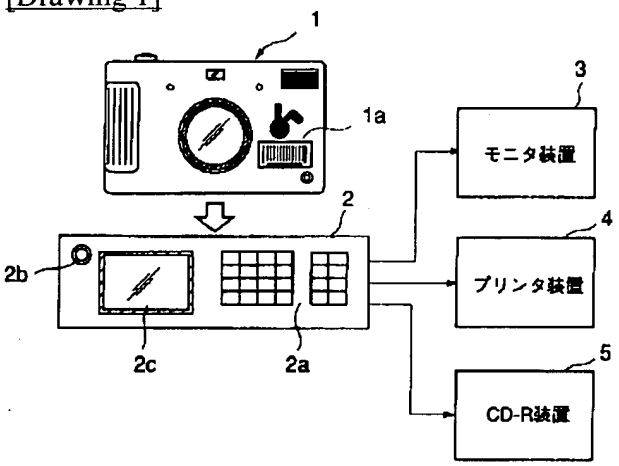
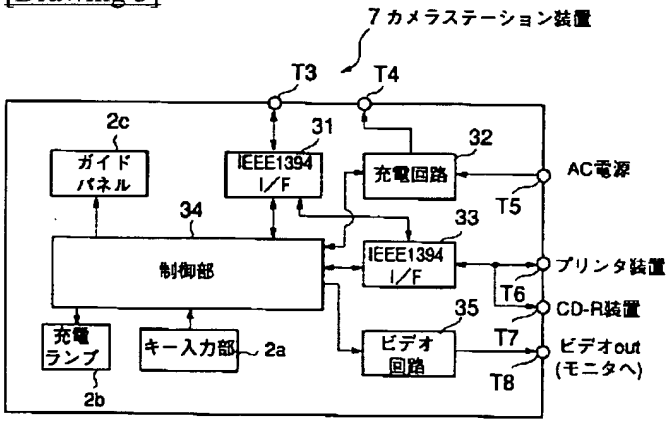
DRAWINGS

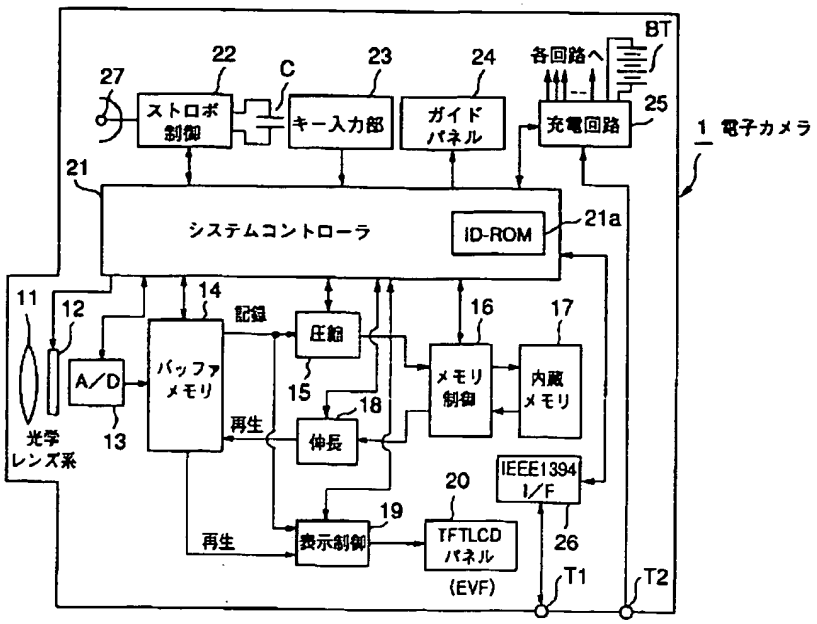
[Drawing 1]



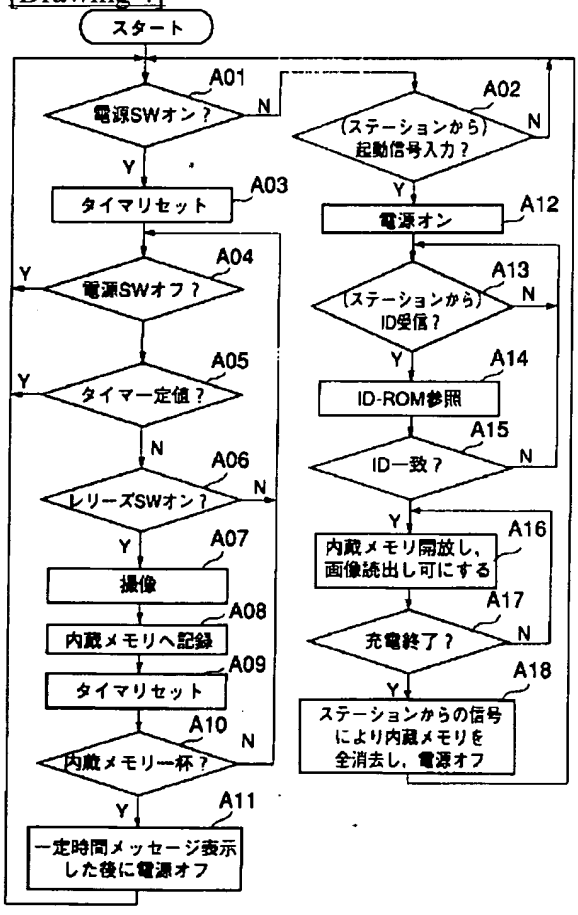
[Drawing 3]



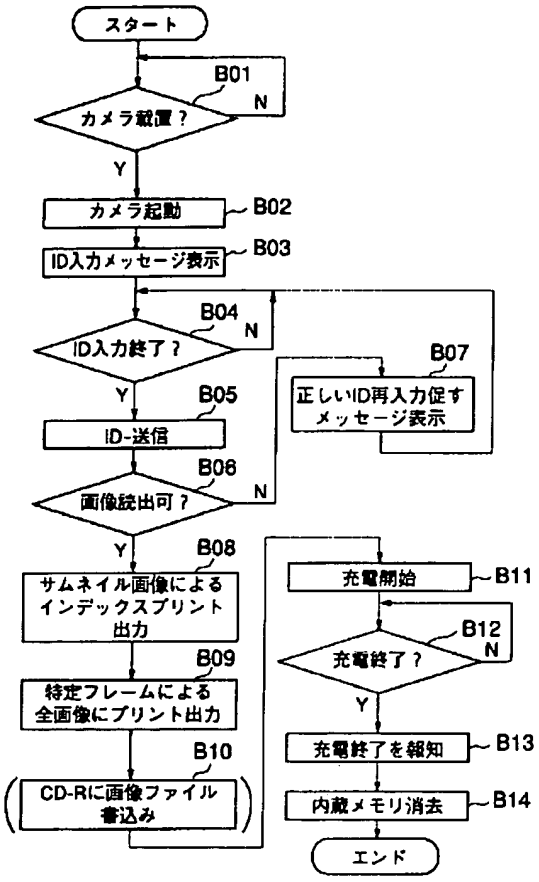
[Drawing 2]



[Drawing 4]



[Drawing 5]



[Translation done.]